Fig. 1

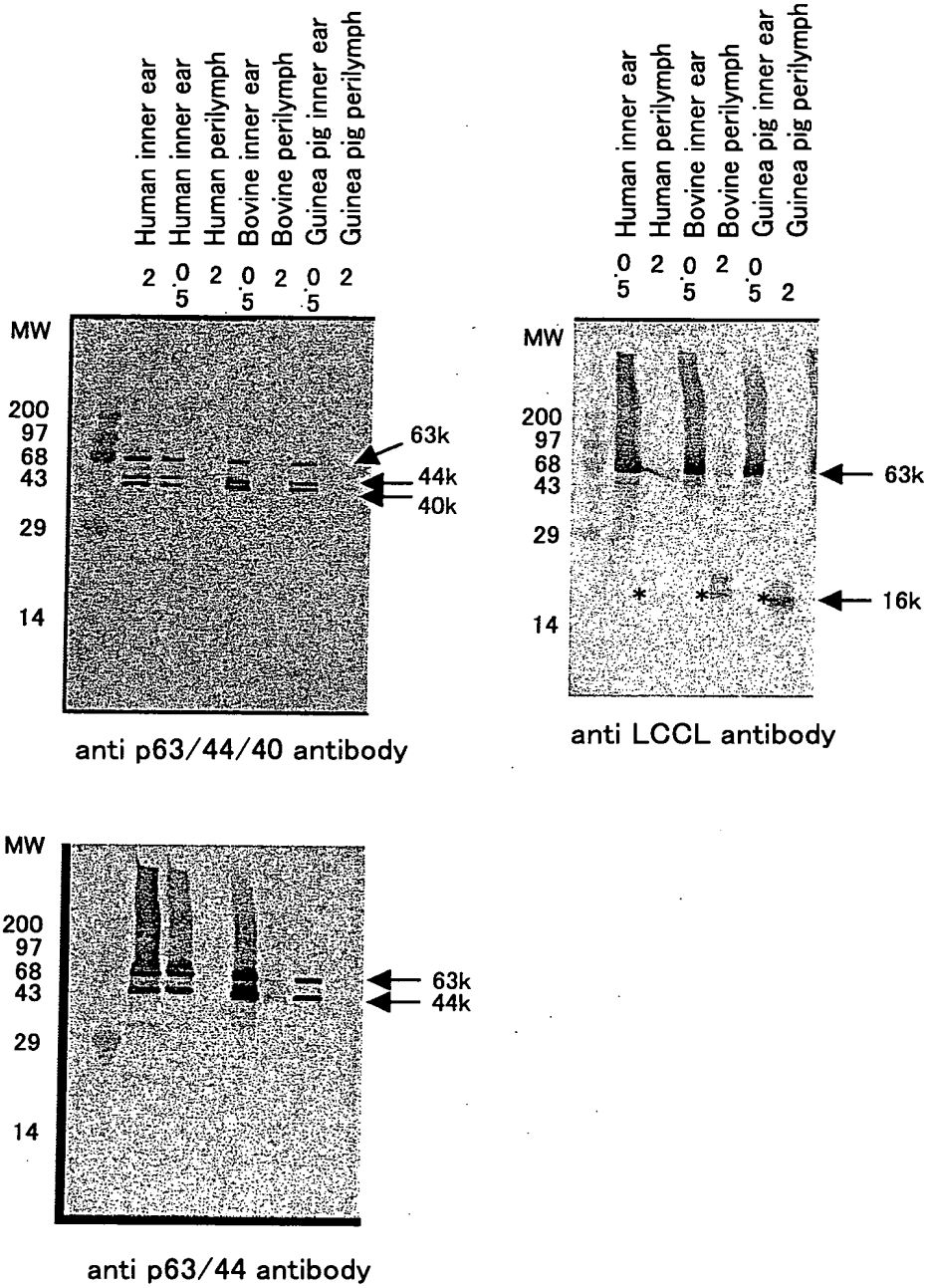

Human inner ear
Human inner ear
Human perilymph
Bovine inner ear
Bovine perilymph
Guinea pig inner ear
Guinea pig perilymph
2
0.5
2
0.5
2
0.5
2
MW
200
97
68
43
29
14
63k
44k
40k
anti p63/44/40 antibody
Human inner ear
Human perilymph
Bovine inner ear
Bovine perilymph
Guinea pig inner ear
Guinea pig perilymph
0.5
2
0.5
2
0.5
2
MW
200
97
68
43
29
14
63k
16k
anti LCCL antibody
MW
200
97
68
43
29
14
63k
44k
anti p63/44 antibody

Fig. 2

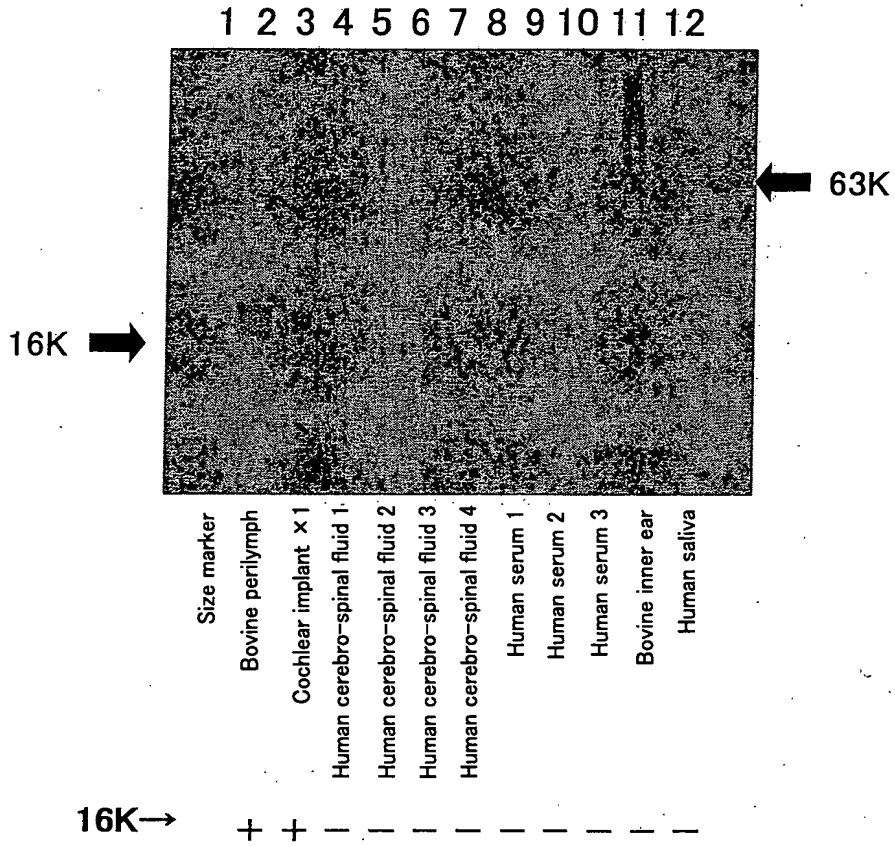

1 2 3 4 5 6 7 8 9 10 11 12
63K
16K
Size marker
Bovine perilymph
Cochlear implant ×1
Human cerebro-spinal fluid 1
Human cerebro-spinal fluid 2
Human cerebro-spinal fluid 3
Human cerebro-spinal fluid 4
Human serum 1
Human serum 2
Human serum 3
Bovine inner ear
Human saliva
16K→
+ + − − − − − − − − −

Fig. 3

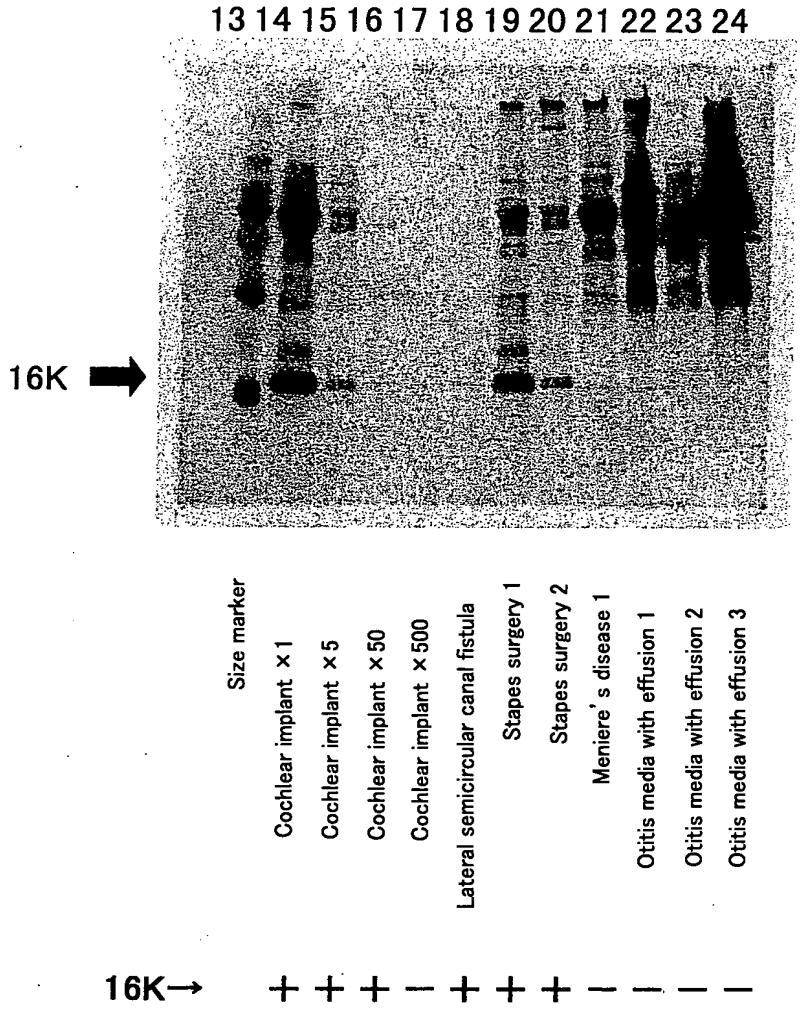

13 14 15 16 17 18 19 20 21 22 23 24
16K
Size marker
Cochlear implant ×1
Cochlear implant ×5
Cochlear implant ×50
Cochlear implant ×500
Lateral semicircular canal fistula
Stapes surgery 1
Stapes surgery 2
Meniere's disease 1
Otitis media with effusion 1
Otitis media with effusion 2
Otitis media with effusion 3
16K→ + + + − + + + − − − −

Fig. 4

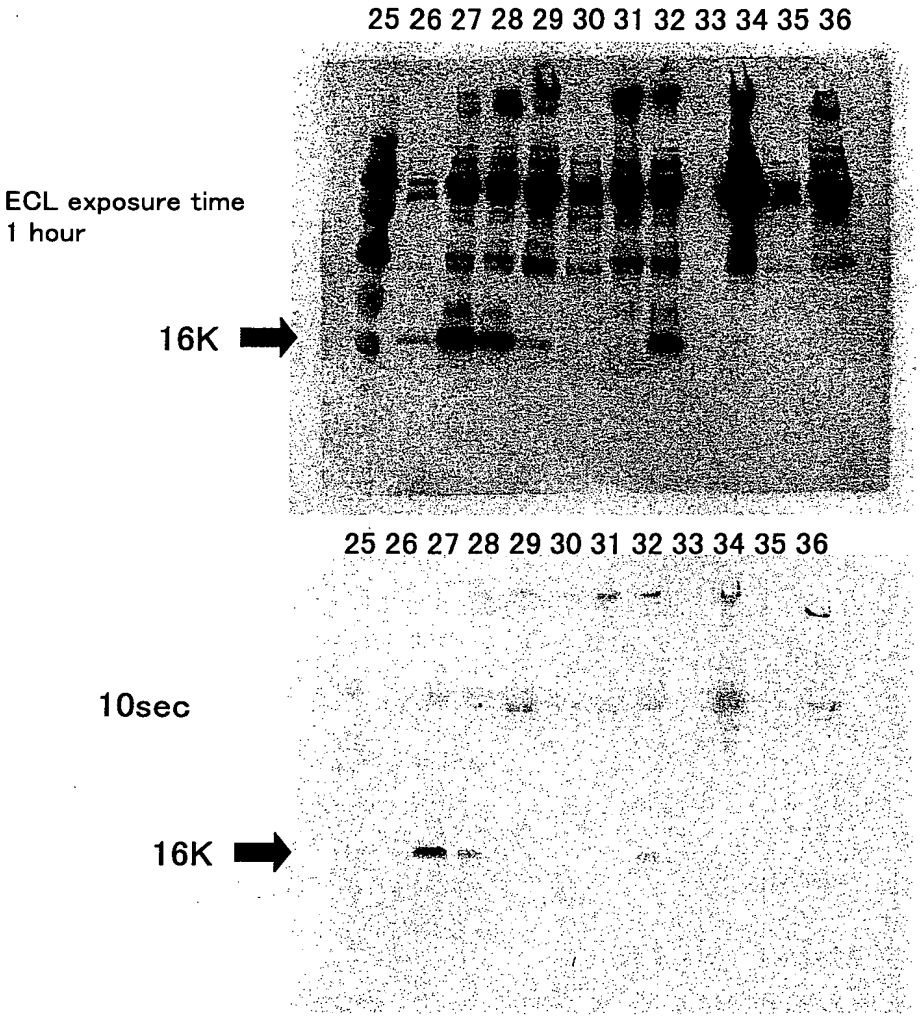

25 26 27 28 29 30 31 32 33 34 35 36
ECL exposure time
1 hour
16K
25 26 27 28 29 30 31 32 33 34 35 36
10sec
16K
16K→
Size marker
Cochlear implant x50
Stapes surgery 1
Stapes surgery 2
Suspected perilymph fistula 1
Suspected perilymph fistula 2
Chronic otitis medi
Stapes surgery 3
traumatic temporal bone fracture
Meniere's disease 1
Meniere's disease 2
+ + + + − − + + − −

Fig. 5

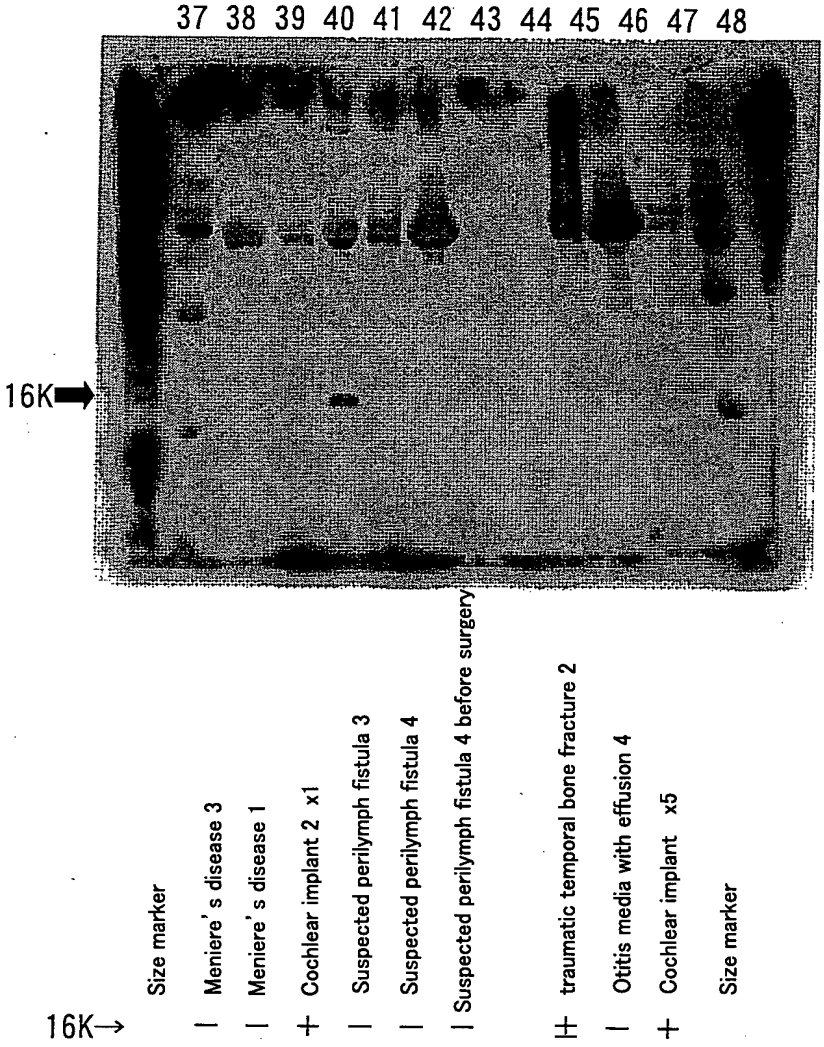

37 38 39 40 41 42 43 44 45 46 47 48
16K
16K→
Size marker
− Meniere's disease 3
− Meniere's disease 1
+ Cochlear implant 2 x1
− Suspected perilymph fistula 3
− Suspected perilymph fistula 4
− Suspected perilymph fistula 4 before surgery
+ traumatic temporal bone fracture 2
− Ottis media with effusion 4
+ Cochlear implant x5
Size marker

Fig. 6

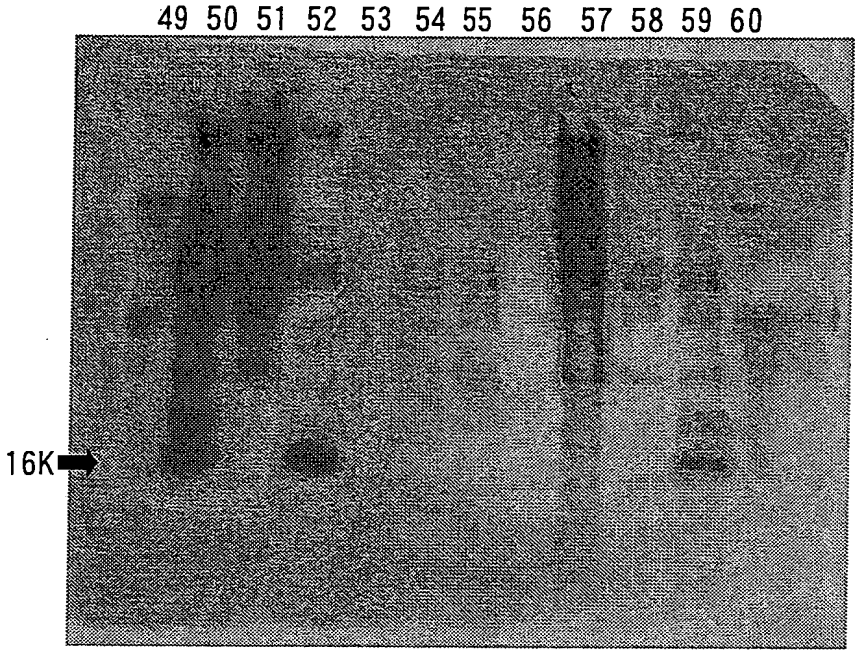
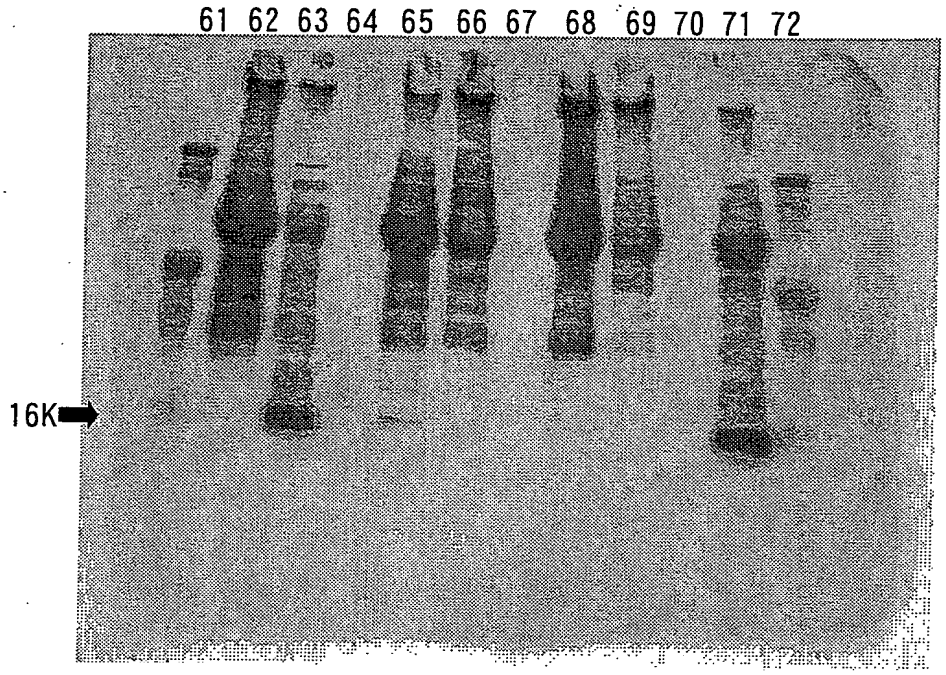

49 50 51 52 53 54 55 56 57 58 59 60
16K
Size marker
Stapes surgery 4
Stapes surgery 5 before surgery
Stapes surgery 5
Meniere's disease 4
Meniere's disease 5
Meniere's disease 3
Stapes surgery 6 before surgery
Stapes surgery 6
Size marker
16K→ + − + − − − − + −

Fig. 7



	Size marker	Stapes surgery 7 before surgery	Stapes surgery 7	Suspected perilymph fistula 5	Suspected perilymph fistula 6	Suspected perilymph fistula 7	Suspected perilymph fistula 8	Stapes surgery 8	Size marker
16K→		−	+	+	+	+	+	+	

Fig. 8

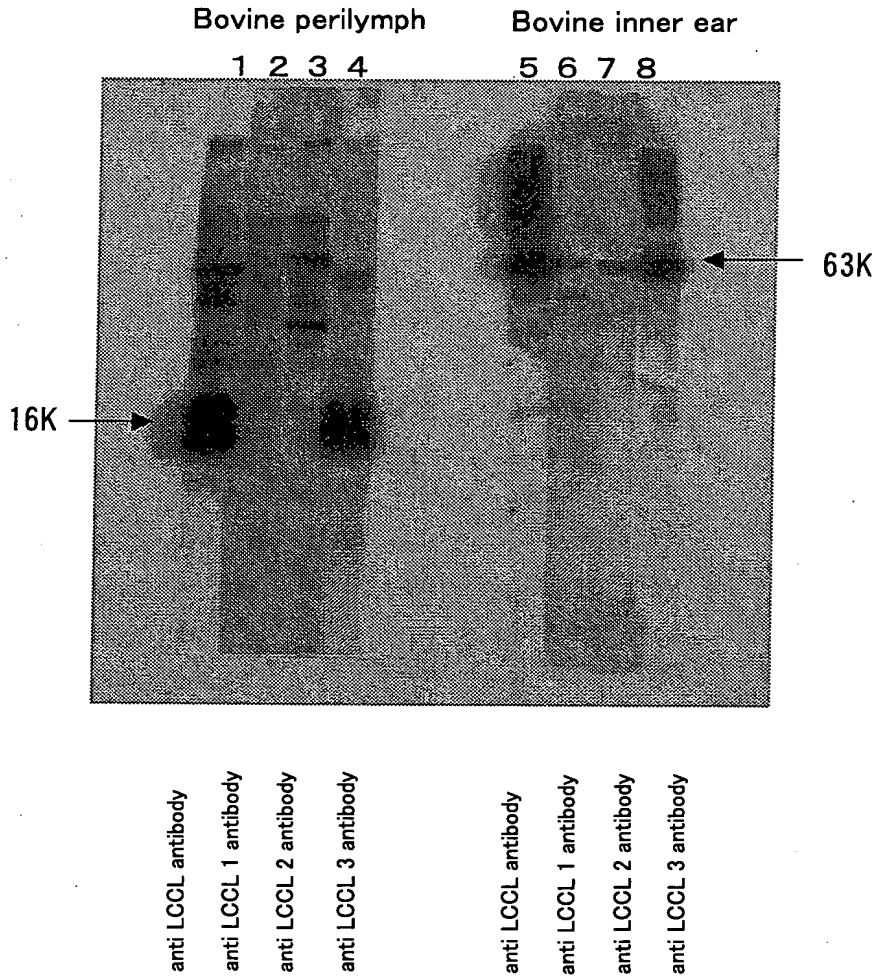

Bovine perilymph
Bovine inner ear
1 2 3 4
5 6 7 8
63K
16K
anti LCCL antibody
anti LCCL 1 antibody
anti LCCL 2 antibody
anti LCCL 3 antibody
anti LCCL antibody
anti LCCL 1 antibody
anti LCCL 2 antibody
anti LCCL 3 antibody

Fig. 9

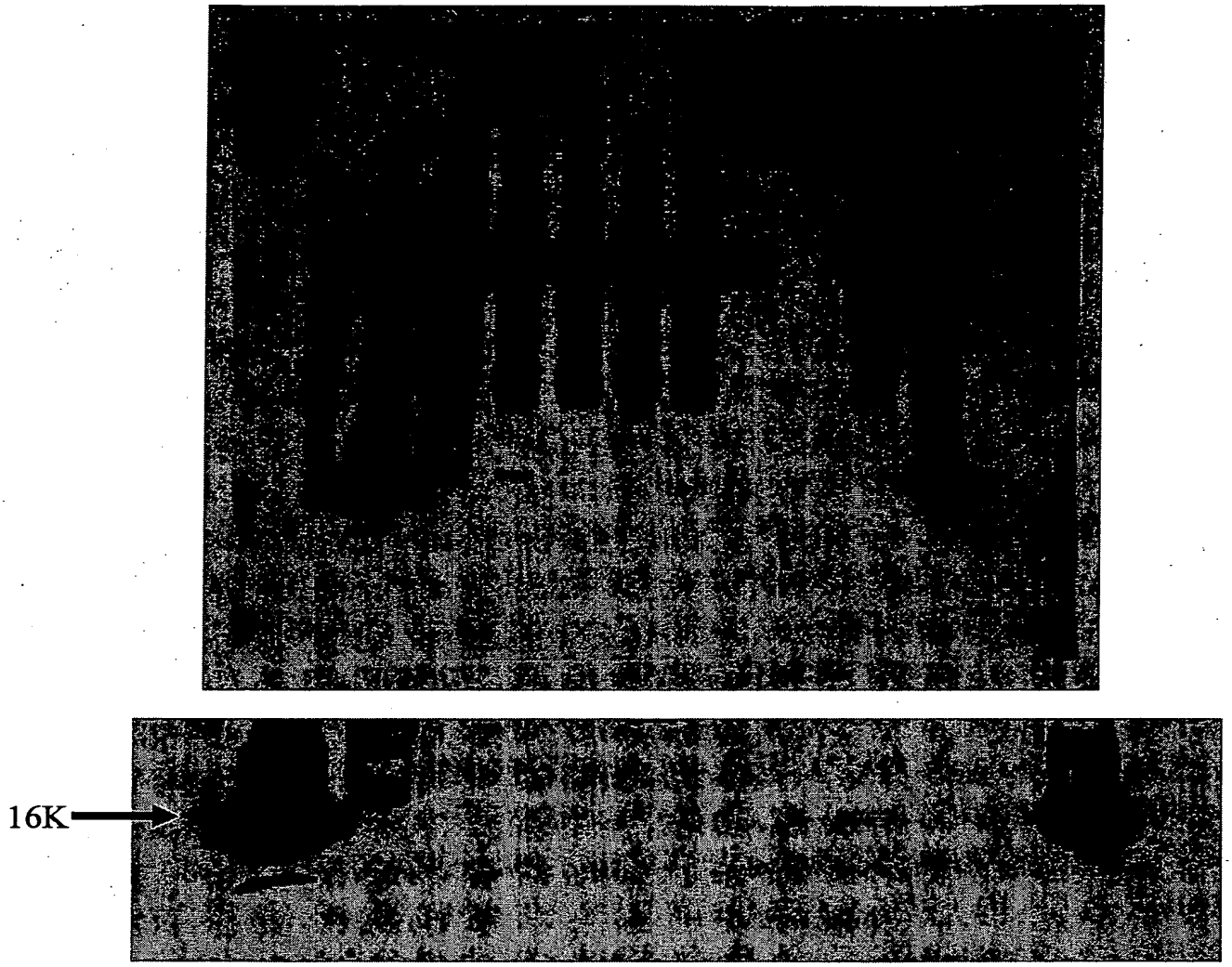

16K
Size marker
+ Cochlear implant 3
− Meniere's disease 3
+ Suspected perilymph fistula 5
+ Suspected perilymph fistula 6
+ Suspected perilymph fistula 7
+ Suspected perilymph fistula 8
− Suspected perilymph fistula 4
+ Stapes surgery 9
+ Stapes surgery 7

Fig. 10

```
0     1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0
      M S A A W I P A L G L G V C L L L L P G P A G S E G A A P I A I T C F T R G L D I R K E K A D V L C
                                                ⇒63
                                                                  36–50 (anti LCCL antibody)

50    1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0
      P G G C P L E E F S V Y G N I V Y A S V S S I C G A A V H R G V I S N S G G P V R V Y S L P G R E N
                                                                                          95–111
                                  63–83 (anti LCCL 1 antibody)

100   1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0
      Y S S V D A N G I Q S Q M L S R W S A S F T V T K G K S S T Q E A T G Q A V S T A H P P T G K R L K
      (anti LCCL 2 antibody)          114–127 (anti LCCL 3 antibody)          ⇒p44   137–151 (anti p63/44 antibody)

150   1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0
      K T P E K K T G N K D C K A D I A F L I D G S F N I G Q R R F N L Q K N F V G K V A L M L G I G T E
            ⇒p40                  163–181 (anti p63/44/40 antibody)

200   1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0
      G P H V G L V Q A S E H P K I E F Y L K N F T S A K D V L F A I K E V G F R G G N S N T G K A L K H
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